

### **REMARKS**

Claims 1-7 are pending and under examination. Claims 3-6 are objected to for being improperly formatted and claim 4 is objected to for depending from rejected claims 1-3. Claims 5 and 6 are rejected under 35 U.S.C. § 112, second paragraph; claim 5 is rejected under 35 U.S.C. § 101; and claims 1-3 and 5-7 are rejected under 35 U.S.C. 102(b). Each of these objections and rejections is addressed below.

#### **Objections to Claims**

Claims 3-6 are objected to for being improperly formatted and claim 4 is objected to for depending from rejected claims 1-3. These objections are overcome by the present amendment canceling claims 3-6.

#### **Rejection under 35 U.S.C. § 112, second paragraph**

Claims 5 and 6 are rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness. This rejection is overcome by the cancellation of claims 5 and 6.

#### **Rejection under 35 U.S.C. § 101**

Claim 5, which is directed to the use of the hydrophilic markers of claims 1-4, is rejected under 35 U.S.C. § 101 for failing to set forth the steps required for the claimed use. This rejection is also overcome by the cancellation of claim 5.

#### **Rejection under 35 U.S.C. § 102(b)**

Claims 1-3, which are directed to hydrophilic markers, and claims 5-7, which are directed to uses of the claimed markers (claim 5) and systems for determining the quality or quantity of such markers (claims 6 and 7), are rejected under 35 U.S.C. 102(b) as anticipated by Czerney et al., (Biol. Chem., 382: 496-498, 2001; hereafter, "Czerney '01") and Czerney et al., (U.S. Patent Publication No. 2002/0115862). Claims 1-3 are further rejected under 35 U.S.C. 102(b) as

anticipated by Okada (U.S. Patent No. 6,143,434; hereafter, "Okada"). Given that claims 1-7 have been cancelled, the foregoing rejections are addressed with respect to new claim 8, which corresponds to canceled claim 4 and includes the limitations of claims 1-3. The Office indicated that such a claim would be in condition for allowance and such action is respectfully requested.

*Czerney '01 and '02*

The Office asserts that Czerney '01 discloses a hydrophil marker of formula II for use in the optical analysis of cells and various compounds. With respect to Czerney '01, the Office states:

The reference discloses the claimed hydrophil marker of the formula II where. . . R<sup>13</sup> and R<sup>14</sup> are methyl . . . and R<sup>10</sup> is a reactive group which is N-hydroxysuccinimide ester which is linked to the chromophore by the aliphatic spacer group (CH<sub>2</sub>)<sub>5</sub> or R<sup>10</sup> is CO<sub>2</sub>H which is linked to the chromophore by an aliphatic spacer group (CH<sub>2</sub>)<sub>5</sub>.

In contrast, claim 8 is directed to asymmetrical polymethine-based hydrophil markers of formula Ia and IIa, where R<sub>10</sub> is -CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-SO<sub>3</sub>. Czerney '01 fails to disclose a hydrophil marker having this formula, and thus fails to anticipate the invention as presently claimed. Thus, this basis for the anticipation rejection may be withdrawn.

With respect to Czerney '01 and '02, the Office asserts that the cited references disclose the systems of claims 6 and 7, which were directed to systems of determining the quality or quantity of the claimed dyes. In order to expedite prosecution, Applicants have cancelled claims 6 and 7. Thus, this basis for the anticipation rejection may also be withdrawn.

*Okada*

The Office asserts that Okada discloses a hydrophil marker of formula I, stating, "The reference discloses the claimed hydrophil marker of the formula I wherein . . . R<sup>6</sup>, R<sup>10</sup>, R<sup>13</sup>, and R<sup>14</sup> are methyl . . ." In support of this rejection, the Office directs Applicants attention to Compound No. 26 at column 14 of Okada. Unlike the hydrophil marker disclosed by Okada, claim 8 is directed to compounds of formula Ia and IIa, where R<sup>10</sup> is -CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-SO<sub>3</sub> and R<sup>14</sup>

is  $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{COOH}$ . Thus, Okada fails to anticipate the invention as presently claimed and this basis for the anticipation rejection may also be withdrawn.

In sum, the invention as presently claimed is not disclosed by any of the references cited by the Office. The Office had indicated in the Office action mailed on September 21, 2004 that claim 4 would be allowable if re-written in independent format to include the limitations of claims 1-3. Claim 8 corresponds to claim 4 and includes the limitations of claims 1-3. Applicants understand that claim 8 is in condition for allowance and such action is respectfully requested.

### CONCLUSION

Applicants have cancelled claims 1-7 and added new claim 8. Applicants understand that the application is now in condition for allowance. If the Office disagrees, a telephonic interview with the undersigned agent is respectfully requested.

Respectfully submitted,

Date: January 21, 2005  
Reg. No. Reg. No. 55,289

Tel. No.: (617) 248-7368  
Fax No.: (617) 248-7100



Melissa Hunter-Ensor, Ph.D.  
Patent Agent  
Testa, Hurwitz, & Thibeault, LLP  
High Street Tower  
125 High Street  
Boston, Massachusetts 02110